

FIG. 1

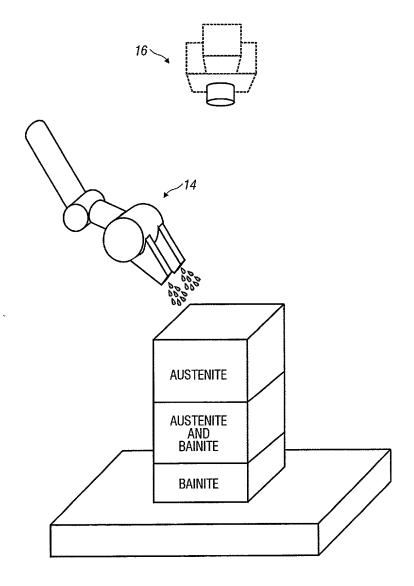


FIG. 1A

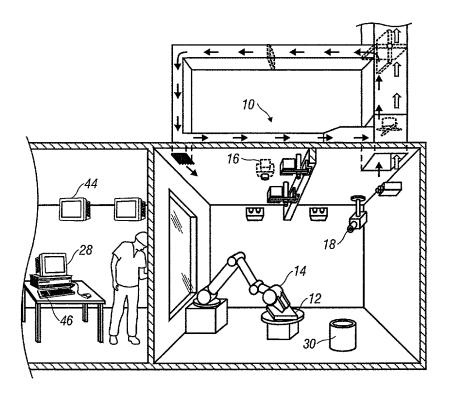
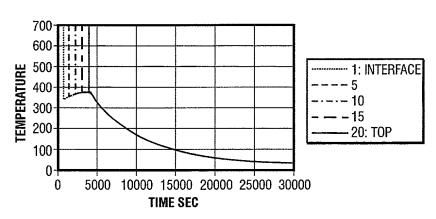
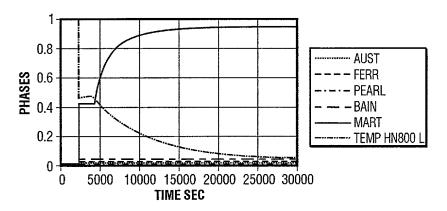


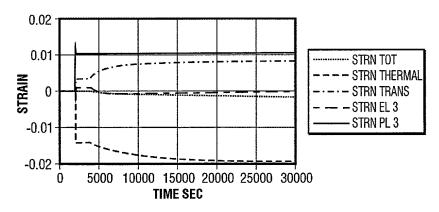
FIG. 2



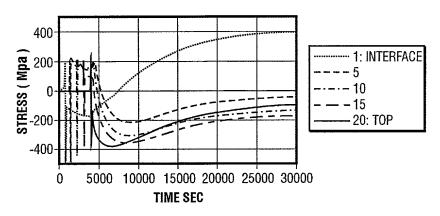
Temperature FIG. 3



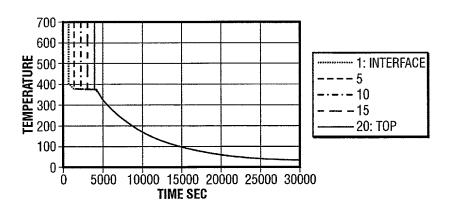
Phases, Position #10 FIG. 4



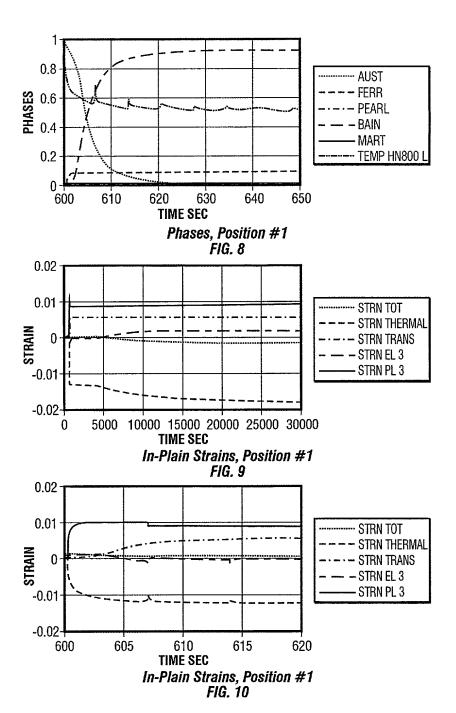
In-Plain Strains, Position #10 FIG. 5

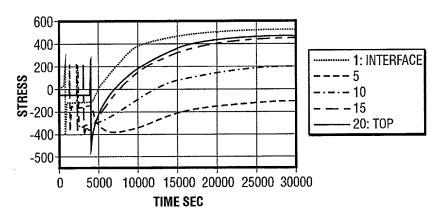


In-Plane Stress FIG. 6

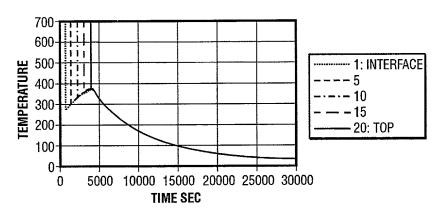


Temperature FIG. 7

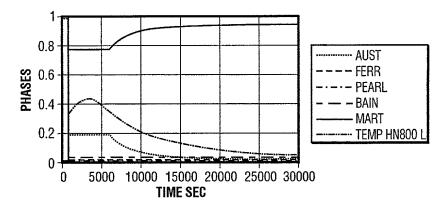




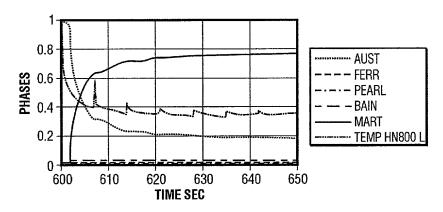
In-Plane Stress FIG. 11



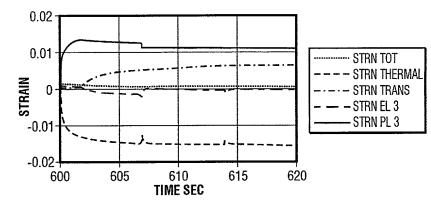
Temperature FIG. 12



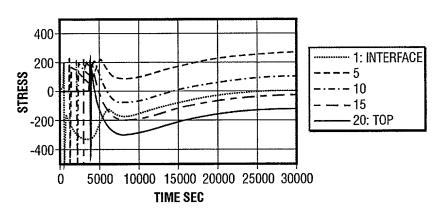
Phases, Position #1 FIG. 13



Phases, Position #1 FIG. 14



In-Plain Strains, Position #1 FIG. 15



In-Plane Stress FIG. 16

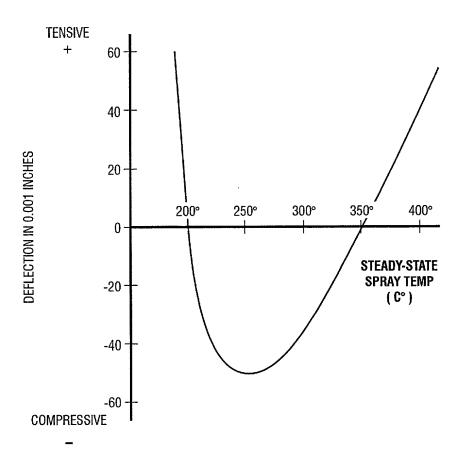
## **WARPAGE IN 0.001 INCH** FOR STEADY-STATE TEMP = $280^{\circ}$ C 2.8 2.7--0.03 2.6 -0.02 -0.024 -0,016 -0.012 2.5 -0.018 2.4 0.016 2.3 2.2-2.1-2.0-1.9-1.8--0.034 0.03 -0.026 -0.014 -0.02 -0.016 1.7 1.6 1.5 1.4 -0.014 1.3 -0.026 1.2--0.024 -0.016 -0.02 1.1 -0.018 -0.016 1.0 + 325 335 340 345 350 355 360 365 330 370 375

FIG. 17

POST TEMPERATURE ( C° )

## WARPAGE IN 0.001 INCH FOR STEADY-STATE TEMP = $320^{\circ}$ C 3.0 2.9 2.8-2.7 -0.02 -0.016 -0.004 2.6--0.01 -0.006 -0.014 -0.002 2.5 -0.008 2.4 -0.006 2.3 2.2-2.1-2.0-1.9-1.8--0.004 2.0 0.02 -0.016 -0.004 1.9 -0.014 0.01 -0.006 -0.008 1.7 1.6 1.5 1.4 1.3 1.2 -0.006 1.1 -0.008 1.0 11 325 0 345 350 355 3 **POST TEMPERATURE ( C° )** 365 370 375 360 330 335 340

FIG. 18



WARPAGE ( OUT OF FLATNESS ) OF SPRAYED METALLIC PLATE VS. STEADY STATE SPRAY TEMPERATURE FIG. 19